

Remarks

Claims 1-71 have been cancelled and new claims 72-77 have been added.

The previously pending claims stood rejected as being either anticipated by Drew et al. (U.S. Patent No. 5,313,061) alone or obvious in view of Drew in combination with Kawanami et al. (U.S. Patent No. 4,755,685) or Kato (U.S. Publication 2002/0125425) or Itoi (U.S. Patent No. 5,837,883) or Blessing et al. (U.S. Patent No. 6,239,429). Applicant requests reconsideration of these rejections in view the new claims and these remarks.

The new claims are allowable in view of the cited references for at least the reason that the cited references fail, either alone or in combination, to teach all of the features recited.

For example, claim 72 specifically recites an ion trap mass spectrometer that includes a lid and base defining a vacuum chamber. The specific lid recited in claim 72 includes both an exterior and interior surface with the exterior surface configured to couple with an analysis component and a first opening extending through the lid from the analysis component to the interior surface which has an ion trap mass separation component mounted thereto, the first opening providing fluid communication between the analysis component and the ion trap.

The lid is further configured to be removably operably coupled with respect to the base and in first and second positions. In the first operable position the lid seals with the base and provides the ion trap component wholly within the vacuum chamber volume. In the second position the lid and all analysis components coupled to the lid

are decoupled from the base to provide the ion trap component wholly outside the vacuum chamber volume. The cited references do not teach these features.

First, Drew provides the description of a sector instrument, not an ion trap as claimed. Drew's designs do provide a lid, however when the lid is removed the mass separator component of Drew (the sector) remains in the same volume as it was when coupled to the base, the sector is not removed from a volume as recited in claim 72. Further, Drew provides for an opening between the ion source 34 and analyzer 40a, however while ion source 34 can be considered an analysis component as recited in claim 72, it cannot be considered coupled to the exterior surface of the lid as recited in claim 72. This is understandable since Drew refers to its ion source 34 as being within its vacuum housing 20, 20a. As such, Drew cannot be read to even suggest the claimed spectrometer, and the remaining references cannot be used to cure shortcomings of Drew for they do not teach or suggest the spectrometer as claimed. For at least these reasons, claim 72 is allowable.

Claims 73-77 depending from claim 72 are allowable for at least the reason that claim 72 is allowable and for their own patentable reasons.

For example, claim 73 recites the features of claim 72 and an edge of the lid extending between the exterior and interior surfaces of the lid with a second opening extending from the edge through the lid to the first opening. The cited references fail to describe a lid with these features. It is then understandable that claim 74 is not described in the prior art, for at least the reason that claim 74 recites that this second opening is configured to receive sample for analysis.

As another example, claim 75 recites that the analysis component coupled to the exterior surface of the lid comprises an ion source component. The cited references fail to describe such a configuration and as described above, Drew describes that the ion source component is coupled to the interior surface of the lid.

Claims 72-77 are in condition for allowance. Applicant requests allowance of claims 72-77 in the Examiner's next action. The Examiner is requested to telephone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at (509) 624-4276 Monday through Friday between 8-5 (PST).

Respectfully submitted,

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By: 

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